

Hard-wearing and hygiene-compliant Joystick switches RK/NK



RK / NK

Hard-wearing and hygiene-compliant



■ Multifunctional:

- Spring-return joystick switch, reset by spring force
- Maintained joystick switch, reset by touch and spring force
- Maintained/spring-return joystick switch, combination of maintaining and relocating the lever's position, i. e. acting as maintained joystick switch in one direction and as spring-return joystick switch in the other

■ Trendsetting:

- Up to four actuating directions

■ Unique:

- Easy to install with central nut AF41
- Non-contact contact system with reed contacts
- Fast connection with M12 connector
- With two connector plugs also for ASi applications
- Designed for extreme environmental demands

■ Individually:

- Same installation depth with one or two reed contacts depending on switch direction
- 5-pin or 8-pin M12 connection
- Selection of different sealing concepts

joystick switches

■ Environmental compatibility:

- High protection class IP69 before front panel
- High protection class IP67 for contact chamber
- Easy to clean with high resistance to chemicals even if aggressive cleaning agents are used

■ Large range of applications:

- Can be deployed in outside areas to hygiene-sensitive areas with extreme environmental requirements
- Extreme ambient temperatures from -40 °C to $+80\text{ °C}$

■ High availability:

- No ingress of harmful fluid even if sealing boot is defective
- Low wear switching thanks to non-contact switch system



RK – Joystick switches for rough ambient conditions



Robust

The RK series is ideally suited for use in outside areas thanks to the special sealing boot and the new sealing concept. The silicon sealing boot is very capable even with high UV radiation.

Easy to install

The joystick switches of the RK/NK series are distinguished in particular by fast installation with central nut attachment and fast connection with M12 connector. The M12 connector is not just fast to install but it also prevents devices from being connected incorrectly.

High availability

The RK series joystick switch is also well equipped to deal with arduous environmental conditions. Should the sealing boot become damaged, any fluid that might find its way inside will have no effect on the encapsulated reed contacts. This gives the system operator enough time to renew the damaged boot assembly.

NK – Joystick switches for hygiene applications



Hygienic design

Tried and tested concept without edges and corners, based on the principles of hygienic design.

Clean and tidy

Use of food-safe materials, which are largely resistant to chemicals, to ensure that daily cleaning with aggressive cleaners will have little effect on the devices.

High availability

The new sealing concept prevents the ingress of fluid even if the sealing boot should become damaged. This provides enough time to renew the defective boot assembly without causing any damage to the machine during cleaning from the ingress of fluid.

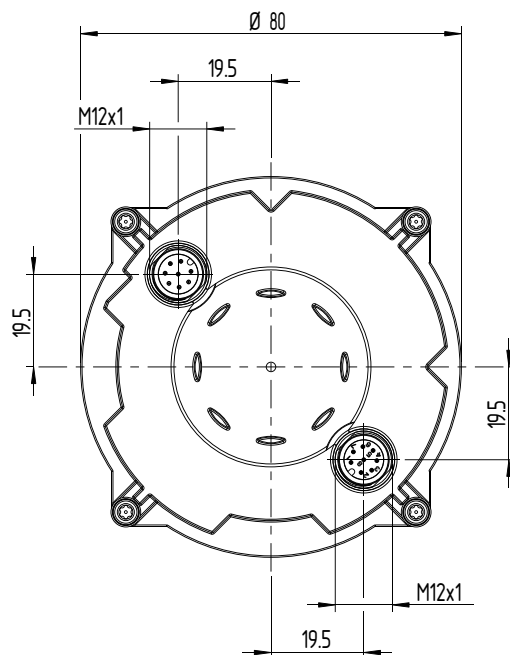
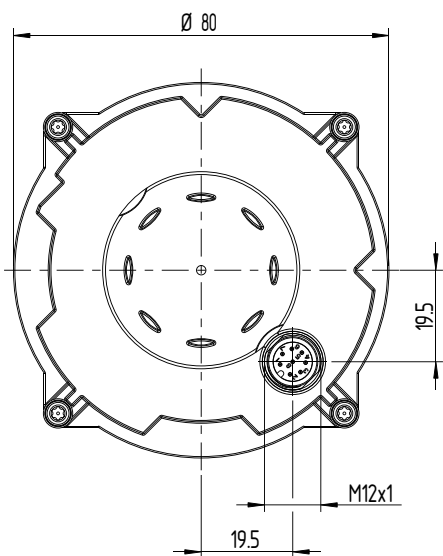
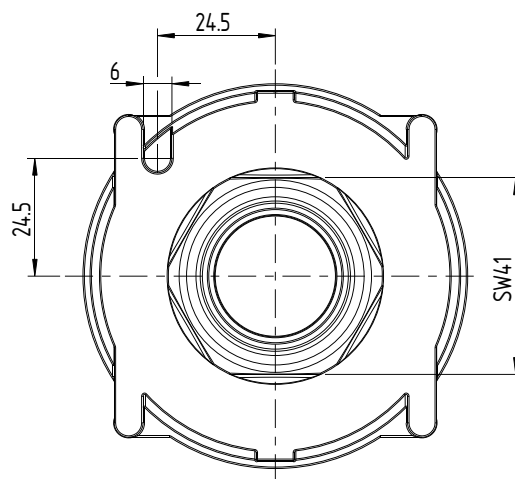
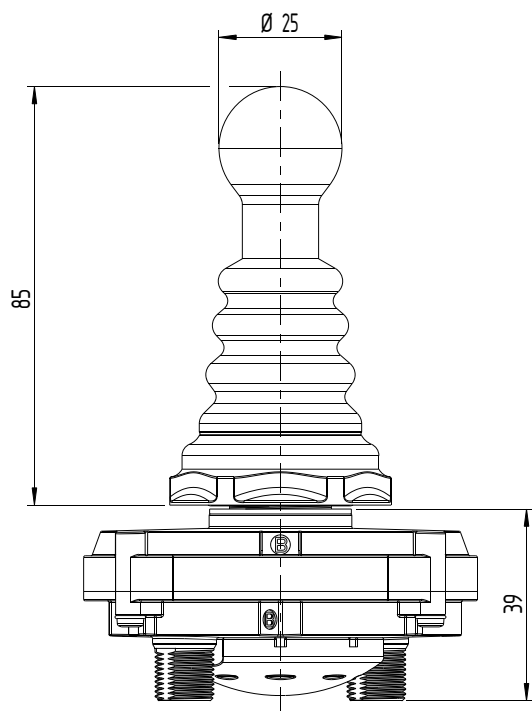


Preferred types

Type description	Ordering code
RK-T-21-1ST8-2	103012429
RK-T-41-1ST8-2	103012427
RK-T-22-2ST8-2	103012430
RK-T-42-2ST8-2	103012428

Type description	Ordering code
NK-T-21-1ST8-2	103012433
NK-T-41-1ST8-2	103012431
NK-T-22-2ST8-2	103012434
NK-T-42-2ST8-2	103012432

Dimensions



Technical data

Features	Joystick switches RK / NK
Mounting diameter	22.3 mm + 0.4 mm
Front plate thickness	1.5 ... 6 mm
Spacing	90 × 90 mm
Connection	Central nut
Ambient temperature	-40 °C ... +80 °C
Protection class (frontside)	IP65, IP67, IP69
Protection class of contact chamber	IP67
Actuating force	approx. 20 N
Contact design	magnetic
Contacts per switch direction	Up to 2 NC contacts
Connection type	M12 connector, 5-pin or 8-pin
Operating current I_e	max. 0.3 A
Rated insulation voltage U_i	30 V
Rated operating voltage	max. 30 VDC
Rated impulse withstand voltage	0.5 kV
Switching capacity	max. 7.2 W
Utilisation category	DC-12
Switching frequency	1,200 / h
Mounting position	any
Resistance to shock	30 g/11 ms
Continuous shock	10 g/16 ms
Standards	IEC 60947-5-1, IEC 60947-1

Operating principle



Maintained joystick switch
Maintained switching positions
(latched position)
Reset by touch and spring force



Spring-return joystick switch
Spring-return switching position
(touch position)
Reset by spring force



Maintained/spring-return joystick switch
Maintained and spring-return
switching positions
Reset by touch and spring force



The Schmersal Group

In the demanding field of machine safety, the owner-managed Schmersal Group is one of the international market leaders. The company, which was founded in 1945, has a workforce of about 2000 people and seven manufacturing sites on three continents along with its own companies and sales partners in more than 60 nations.

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A major contribution to the systems and solutions offered by the Schmersal Group is made by tec.nicum with its comprehensive range of services: certified Functional Safety Engineers advise machinery manufacturers and machinery operators in all aspects relating to machinery and occupational safety – and do so with product and manufacturer neutrality. Furthermore, they plan and realise complex solutions for safety around the world in close collaboration with the clients.

Safety Products



- Safety switches and sensors, solenoid interlocks
- Safety controllers and safety relay modules, safety bus systems
- Optoelectronic and tactile safety devices
- Automation technology: position switches, proximity switches

Safety Systems



- Complete solutions for safeguarding hazard areas
- Individual parametrisation and programming of safety controllers
- Tailor-made safety technology – be it for individual machines or a complex production line
- Industry-specific safety solutions

Safety Services



- tec.nicum academy – Seminars and training
- tec.nicum consulting – Consultancy services
- tec.nicum engineering – Design and technical planning
- tec.nicum integration – Execution and installation

The details and data referred to have been carefully checked.
Subject to technical amendments and errors.

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